LOS ANGELES TIMES
19 April 1986

Titan With Secret Payload Blows Up

Blast May Deal Major Blow to U.S. Eye in Space

By JAMES GERSTENZANG and RALPH VARTABEDIAN, *Times Staff Writers*

WASHINGTON—The explosion of a Titan 34-D rocket at Vandenberg Air Force Base is a serious setback to the nation's ability to put heavy satellites into orbit and depletes the inventory of photo reconnaissance satellites, sources knowledgeable about the U.S. space program said Friday.

Although the Air Force declined to identify the cargo carried by the rocket that exploded, industry experts said it was probably a KH-11 reconnaissance satellite. The United States now has only one such satellite in orbit.

It was launched in December, 1984, and, with an expected life of two to three years, it could stop functioning later this year.

'Precarious Position'

"Right now, we are operating at half-capacity," said Jeffrey Richelson, a specialist in military space issues at American University in Washington. "We are in a precarious position."

Friday's explosion will delay further launches of the large Titans until the Air Force can determine the cause of the blast, which occurred five seconds after lift-off. That, coupled with the grounding of the space shuttles as a result of the Jan. 28 explosion that destroyed the Challenger, means that much of the U.S. capacity to launch satellites will remain on the ground.

The next new rocket with the ability to lift heavy cargoes, the D-7, is not expected to be ready for launch until October, 1988, at the earliest, according to the Air Force.

In 1985, the shuttles and Titan 34-Ds accounted for two-thirds of satellite launches, the Air Force said, with lighter rockets accounting for the rest. But on Aug. 28, a Titan 34-D failed two minutes after lift-off in the first such setback after seven straight successful launches.

The investigation of that failed launch was said to have determined that a high-powered fuel pump failed and that a massive oxidizer leak and a smaller fuel leak occurred. As a result, one of the two engines shut down prematurely. Friday's launch was the first attempt since the August failure.

Although the Air Force said that the cargo aboard the rocket that exploded was classified, Richelson said "the most likely possibility" is that it was a KH-11 satellite, the nation's principal photo reconnaissance orbiter.

Richelson held out the possibility that the payload might have been a new type of unpublicized satellite, although he said other satellites launched at Vandenberg into polar orbits use boosters other than the Titan 34-D. If Friday's payload was a KH-11, he said, then the explosion destroyed the last remaining such satellite in the U.S. inventory.

"The nation's launch vehicle program is a disaster," said a high-level space expert in Los Angeles. "The only two viable launch vehicles, the Titan and the shuttle, both have had failures. A decade ago, we had four launch vehicles, but now we have only these two. So the effect of the loss is much greater now."

Despite the seriousness of the Titan loss, it is the near-term threat to U.S. intelligence capabilities that is likely to cause the greatest anxiety to the military.

KH-11 satellites, in the view of experts, provide the United States the ability to view from the relative security of space objects as small as a license plate. Most recently, aerial photography from satellites or high-altitude spy planes played a key role in the bombing raids on Libya.

Such satellites also can be critical to following military movements and production and deployments of missiles. Without satellite photo reconnaissance, Richelson said, "if there is a crisis in Poland or Afghanistan, you would lose your ability to keep close track of events."

Referring to the August Titan loss, he said: "Two failures in a row are pretty bad. We had 50 successful launches in a row before this."

The shuttle, assigned a role in the Air Force's space program, is the only vehicle that can place a new spy satellite, the KH-12, in orbit. Thus, with the three remaining shuttles grounded, there is no prospect for getting a new photo reconnaissance satellite into orbit soon, Richelson and other space experts said. The KH-12 was originally scheduled to be launched in August.

The worst-case scenario, according to Richelson, would occur if the one existing KH-11 fails before a KH-12 can be launched.

The KH designation reflects the military code-word Keyhole.

James Gerstenzang reported from Washington and Ralph Vartabedian reported from Los Angeles.